UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/651,539	08/29/2000	Thomas G. Adams	19927-000510US	9913

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EXAMINER
TRAN, HAI V

ART UNIT	PAPER NUMBER
2611	

DATE MAILED: 08/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

<table>
<tr><td rowspan="3" align="center">Office Action Summary</td><td>Application No.

09/651,539</td><td>Applicant(s)

ADAMS ET AL.</td></tr>
<tr><td>Examiner

Hai Tran</td><td>Art Unit

2611</td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-16_ is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-16_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _29 August 2000_ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

     If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All b)☐ Some * c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____ .

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

     a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _4-6_ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

U.S. Patent and Trademark Office

PTOL-326 (Rev. 04-01)   Office Action Summary   Part of Paper No. 7

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-3, 6, 8-11, 14 and 16 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Maturi et al. (US 5559999) in view of Fujii et al. (US 5898695).

Regarding claim 1, Maturi discloses a method for processing a transport

stream (Summary of the Invention), the method comprising:

Parsing the transport stream to derive multiple elementary streams including

associated program identifiers (Transport Stream Packet has a PID associate with it

according to MPEG standard, Fig. 3; elements 22 and 24; Col. 5, lines 50-65);

Using the associated program identifiers to determine corresponding transfer

locations in a host memory (PID is within PES header; Fig, 3, elements 20a-d; Col.

2, lines 65-Col. 3, line 1 and Col. 5, lines 53-65);

Maturi does not discloses "Performing direct memory access transfers of the

multiple elementary streams to the corresponding transfer locations in the host

memory."

Fujii (US 5898695) discloses performing direct memory access transfers of

the multiple elementary streams to the host memory (Fig. 14; elements 7, 14, 71 and

121; Col. 9, lines 23-34 and lines 47-65+). Therefore, it would have been obvious to

one of ordinary skill in the art at the time the invention was made to modify Maturi by

implement a DMA transfers, as taught by Fujii (US 5898695), so to by pass the CPU

thus increase the transfer rate of data between receiving device and the memory

(Col. 9, lines 65-65+).

Regarding claim 2, Maturi further discloses transferring the multiple

elementary streams to an end user system (user's television monitor or the like; Col.

6, lines 20- Col. 7, lines 9).

Regarding claim 3, Maturi further discloses wherein the end user system

comprises an audio-visual system (user's television monitor or the like Col. 7, lines

4-5) and the step of transferring the multiple elementary streams to an end user

system (user's television monitor or the like Col. 7, lines 4-5) comprises transferring

the multiple elementary streams through an audio-visual interface (television/video

and audio presentation unit; Fig. 3; Col. 6, lines 20-Col. 7, lines 9).

Regarding claim 6, Maturi further discloses wherein the step of using the

associated program identifiers (PID is within PES header) to determine

corresponding transfer locations in a host memory (DRAM) comprises: •

Buffering each elementary stream in a first-in-first-out module (Col. 5; lines

53-64); and

Assigning the transfer location in the host memory to the buffered elementary

stream (DRAM is initially partitioned into video header buffer 20a, a video channel

buffer 20b, an audio header buffer 20c and an audio channel buffer 20d and a frame

memory buffer 20e; see Col. 5, lines 45-50) according to a particular program

identifier (Fig. 4-6; Col. 5, lines 65-Col. 6, lines 10-41).

Regarding claim 8, Fujii (US 5898695), further discloses wherein the direct

memory access transfer is performed automatically to the host memory without

storage in a local memory (Fuji does not have "local memory"; the transfer is done

between the transfer buffers 141 and the host memory (RAM 7); Fig. 5 and 14; Col.

8, lines 23-29 and lines 59-65+).

Regarding claim 9, Maturi discloses a system for receiving and processing a

transport stream (Fig. 3), the system comprising:

A receiver 16 configured to derive multiple data streams and associated

program identifiers from the transport stream (Transport Stream Packet has a PID

associate with it according to MPEG standard, Fig. 3; elements 22 and 24; Col. 5,

lines 50-65); and

Maturi does not discloses "A direct memory access transfer engine within the

receiver, the DMA transfer engine being configured to initiate DMA transfers of the

multiple data streams to corresponding transfer locations in a host memory that are

determined using the associated program identifiers."

Fujii (US 5898695) discloses A direct memory access transfer engine 121

within the receiver, the DMA transfer engine being configured to initiate DMA

transfers of the multiple data streams (Fig. 12B) to corresponding transfer locations

(packet landing buffer 71; Fig.13-14) in a host memory (RAM 7; Fig.14) that are

determined using the associated program identifiers (Fig. 13-14; elements 14, 71

and 121; Col. 9, lines 23-34 and lines 47-65+). Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to

modify Maturi by implement a DMA transfers, as taught by Fujii (US 5898695), so to

by pass the CPU thus increase the transfer rate of data between receiving device

and the memory (Col. 9, lines 65-65+).

Regarding claim 10, Fujii (US 5898695) further discloses the system further

comprising an interface (display interface unit 16; Fig. 16) connected to the receiver

configured to transfer the multiple elementary streams to an end user system

(external monitor and/or speaker Col. 10, lines 54-56).

Regarding claim 11, Fujii (US 5898695) further discloses wherein the end

user system comprises an audio-visual system (external monitor and/or speaker Col.

10, lines 54-56) and the interface comprises an audio-visual interface (display

interface unit 16; Fig. 16).

Regarding claim 14, Maturi further comprising a first-in-first-out module 20

within the receiver, the first-in-first-out module configured to buffer each elementary

stream (Fig. 3; Col. 5; lines 53-64),

Wherein the receiver is configured to assign the transfer location in the host

memory to the buffered elementary stream (DRAM is initially partitioned into video

header buffer 20a, a video channel buffer 20b, an audio header buffer 20c and an

audio channel buffer 20d and a frame memory buffer 20e; see Col. 5, lines 45-50)

according to a particular program identifier (Fig. 4-6; Col. 5, lines 65-Col. 6, lines 10-

41).

Regarding claim 16, Fujii (US 5898695) further discloses wherein the DMA

transfer engine is configured to transfer the multiple data streams automatically from

the receiver to the host memory without storage in a memory local to the receiver

(Fuji does not have "local memory"; the transfer is done between the transfer buffers

141 and the host memory (RAM 7); Fig. 5 and 14; Col. 8, lines 23-29 and lines 59-

65+).

2. Claims 4-5 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Maturi et al. (US 5559999) in view of Fujii et al. (US 5898695), and further in

view of Fujii et al. (US 6477179).

Regarding claim 4, Maturi and Fujii (US 5898695) do not clearly disclose

wherein the end user system comprises a networked computer and the step of

transferring the multiple elementary streams to an end user system comprises

transferring the multiple elementary streams through a network interface.

Fujii (US 6477179) discloses wherein the end user system comprises a networked computer and the step of transferring the multiple elementary streams (digital data stream) to an end user system comprises transferring the multiple elementary streams through a network interface (LAN Interface; Fig. 1-3 and 6; Col. 3, lines 55-Col. 4, lines 10 and Col. 7, lines 19-60). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Maturi and Fujii (US 5898695) by integrating a network interface connected to a networked computer, as taught by Fujii (US 6477179), so the receiving device outputs digital data received through, for example, a digital satellite broadcast network to a network computer (Col. 1, lines 6-10).

Regarding claim 5, Maturi and Fujii (US 5898695) and Fujii (US 6477179) do not clearly disclose the network computer comprises a World Wide Web browser; However, Fujii (US 6477179) discloses that the personal computer is connected to a service provider of the Internet (Col. 3, lines 50-55).

Official Notice is taken that the user of a WWW browser for surfing the Internet is notoriously well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Maturi in view of Fujii (US 5898695) and Fujii (US 6477179) to have a network computer comprises a Web browser (i.e. Netscape) as claimed so that the user could take the advantage to browse the World Wide Web to obtain addition information beside TV programs.

Regarding claim 12, Maturi and Fujii (US 5898695) do not clearly disclose

wherein the end user system comprises a networked computer system and the

interface comprises a network interface

Fujii (US 6477179) discloses wherein the end user system comprises a

networked computer and the interface comprises a network interface (LAN Interface;

Fig. 1-3 and 6; Col. 3, lines 55-Col. 4, lines 10 and Col. 7, lines 19-60). Therefore, it

would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify Maturi and Fujii (US 5898695) by integrating a network

interface connects to a networked computer, as taught by Fujii (US 6477179), so the

receiving device outputs digital data received through, for example, a digital satellite

broadcast network to a network computer (Col. 1, lines 6-10).

Regarding claim 13, Maturi and Fujii (US 5898695) and Fujii (US 6477179) do

not clearly disclose wherein the end user system further comprises a WWW

browser. However, Fujii (US 6477179) discloses that the personal computer is

connected to an Internet service provider through TCP/IP (Col. 3, lines 50-55).

Official Notice is taken that the user of a WWW browser for surfing the

Internet is notoriously well known in the art. Therefore, it would have been obvious

to one of ordinary skill in the art at the time the invention was made to modify Maturi

in view of Fujii (US 5898695) and Fujii (US 6477179) to have a network computer

comprises a Web browser (i.e. Netscape) as claimed so that the user could take the

advantage to browse the World Wide Web to obtain addition information beside TV

programs.

3. Claims 7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Maturi et al. (US 5559999) in view of Fujii et al. (US 5898695), and further in view of

Barry (US 6256683).

    Regarding claim 7, Maturi and Fujii (US 5898695) do not disclose wherein the

direct memory access transfer is performed between a local memory and the host

memory.

    Barry discloses wherein the direct memory access transfer is performed

between a local memory (Fig.2, elements 210-215) and the host memory (Fig. 2,

element 250; Col. 5, lines 47-53). Therefore, it would have been obvious to one of

ordinary skill in the art at the time the invention was made to modify Maturi and Fujii

(US 5898695) with Barry so to provide a set of flexible addressing modes for

supporting efficient data transfers to and from multiple memories, together with

methods and apparatus for distributing data to and collecting data from an array of

processing element (PEs) in a flexible and efficient manner and PE address

translation which allows data distribution and collection based on PE and virtual ID

(Col. 2, lines 2-6).

Regarding claim 15, Maturi and Fujii (US 5898695) do not disclose wherein the DMA transfer engine is configured to transfer the multiple data streams between a memory local to the receiver and the host memory.

Barry discloses wherein the DMA transfer engine 201 is configured to transfer the multiple data streams between a memory local to the receiver (Fig.2, elements 210-215) and the host memory (Fig. 2, element 250; Col. 5, lines 47-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Maturi and Fujii (US 5898695) with Barry so to provide a set of flexible addressing modes for supporting efficient data transfers to and from multiple memories, together with methods and apparatus for distributing data to and collecting data from an array of processing element (PEs) in a flexible and efficient manner and PE address translation which allows data distribution and collection based on PE and virtual ID (Col. 2, lines 2-6).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Schneidewend et al. (US 6182287) shows a preferred service management system for multimedia video decoder.

Contact Fax Information

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or Faxed to: (703) 872-9314
For informal or draft communications, please label "PROPOSED" or "DRAFT"

Hand-delivered responses should be brought to Crystal Park II, 2121
Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Contact Information

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Hai Tran whose telephone number is (703) 308-7372.
The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00
PM.
  If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Andrew Faile, can be reached on (703) 305-4380. The fax phone number
for the organization where this application or proceeding is assigned is (703) 872-9314.

  Any inquiry of a general nature or relating to the status of this application or
proceeding should be directed to the receptionist whose telephone number is (703) 306-
0377.

Hai Tran

Examiner
Art Unit 2611

August 23, 2003